

What Is Claimed Is:

1. An array substrate for a liquid crystal display device, comprising:
 - a substrate;
 - a gate line on the substrate;
 - a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;
 - a thin film transistor connected to the gate line and the data line;
 - a reflective electrode corresponding to the reflective portion and covering the first and second branch lines; and
 - a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode.
2. The substrate according to claim 1, wherein a width of the first branch line is substantially the same as a width of the second branch line.

3. The substrate according to claim 1, wherein the thin film transistor includes a gate electrode connected to the gate line, an active layer, a source electrode connected to the data line, a drain electrode connected to the reflective electrode.

4. The substrate according to claim 3, wherein the active layer includes amorphous silicon (a-Si:H).

5. The substrate according to claim 1, wherein the reflective electrode has at least one of silver (Ag), aluminum (Al) and aluminum (Al) alloy.

6. The substrate according to claim 1, wherein a surface of the reflective electrode has an unevenness.

7. The substrate according to claim 1, wherein the transparent electrode has one of indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).

8. The substrate according to claim 1, wherein a space between the first and second branch lines corresponds to the transmissive portion.

9. The substrate according to claim 1, further comprising a passivation layer between the transparent electrode and the reflective electrode.

10. The substrate according to claim 9, wherein the passivation layer includes a groove corresponding to the transmissive portion.

11. The substrate according to claim 1, further comprising a color filter layer on the reflective electrode.

12. The substrate according to claim 11, wherein one of red, green and blue sub-color filters in the color filter layer corresponds to the pixel region.

13. The substrate according to claim 11, wherein the color filter layer has a first thickness in the transmissive portion and a second thickness in the reflective portion, the first thickness being substantially twice as great as the second thickness.

14. The substrate according to claim 11, further comprising a passivation layer between the transparent electrode and the reflective electrode.

15. The substrate according to claim 14, wherein the passivation layer includes a groove corresponding to the transmissive portion.

16. A fabricating method of an array substrate for a liquid crystal display device, comprising:

forming a gate line on a substrate;

forming a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;

forming a thin film transistor connected to the gate line and the data line;

forming a reflective electrode corresponding to the reflective portion and covering the first and second branch lines; and

forming a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode.

17. The method according to claim 16, wherein a width of the first branch line is substantially the same as a width of the second branch line.

18. The method according to claim 16, wherein the thin film transistor includes a gate electrode connected to the gate line, an active layer, a source electrode connected to the data line, a drain electrode connected to the reflective electrode.

19. The method according to claim 16, wherein the reflective electrode has at least one of silver (Ag), aluminum (Al) and aluminum (Al) alloy.

20. The method according to claim 16, wherein a surface of the reflective electrode has an unevenness.

21. The method according to claim 16, wherein the transparent electrode has one of indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).

22. The method according to claim 16, wherein a space between the first and second branch lines corresponds to the transmissive portion.

23. The method according to claim 16, further comprising forming a passivation layer between the transparent electrode and the reflective electrode.

24. The method according to claim 23, wherein the passivation layer includes a groove corresponding to the transmissive portion.

25. The method according to claim 16, further comprising forming a color filter layer on the reflective electrode.

26. The method according to claim 25, wherein one of red, green and blue sub-color filters in the color filter layer corresponds to the pixel region..

27. The method according to claim 25, wherein the color filter layer has a first thickness in the transmissive portion and a second thickness in the reflective portion, the first thickness being substantially twice as great as the second thickness.

28. The method according to claim 25, further comprising forming a passivation layer between the transparent electrode and the reflective electrode.

29. The method according to claim 28, wherein the passivation layer includes a groove corresponding to the transmissive portion.

30. A liquid crystal display device, comprising:

first and second substrates spaced apart from each other;

a gate line on the first substrate;

a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;

a thin film transistor connected to the gate line and the data line;

a reflective electrode corresponding to the reflective portion and covering the first and second branch lines;

a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode;

a color filter layer on the second substrate;

a common electrode on the color filter layer; and

a liquid crystal layer between the reflective electrode and the common electrode.

31. A liquid crystal display device, comprising:

first and second substrates spaced apart from each other;

a gate line on the first substrate;

a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch

lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;

a thin film transistor connected to the gate line and the data line;

a reflective electrode corresponding to the reflective portion and covering the first and second branch lines;

a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode;

a color filter layer on the reflective electrode;

a common electrode on the second substrate; and

a liquid crystal layer between the color filter layer and the common electrode.

32. The device according to claim 31, further comprising a passivation layer between the transparent electrode and the reflective electrode, the passivation layer including a groove corresponding to the transmissive portion.

33. The device according to claim 32, wherein the liquid crystal layer has a first thickness in the transmissive portion and a second thickness in the reflective portion, the first thickness being substantially twice as great as the second thickness.

34. The device according to claim 33, wherein the color filter layer has a third thickness in the transmissive portion and a fourth thickness in the reflective portion, the third thickness being substantially twice as great as the fourth thickness.

35. A fabricating method of a liquid crystal display device, comprising:

forming a gate line on a first substrate;

forming a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;

forming a thin film transistor connected to the gate line and the data line;

forming a reflective electrode corresponding to the reflective portion and covering the first and second branch lines;

forming a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode;

forming a color filter layer on a second substrate;

forming a common electrode on the color filter layer;

attaching the first and second substrates such that the reflective electrode faces the common electrode; and

forming a liquid crystal layer between the reflective electrode and the color filter layer.

36. A fabricating method of a liquid crystal display device, comprising:

forming a gate line on a first substrate;

forming a data line crossing the gate line to define a pixel region including a transmissive portion and a reflective portion, the data line being divided into first and second branch lines, the first and second branch lines being spaced apart from each other and disposed in the reflective portion of the adjacent pixel regions, respectively;

forming a thin film transistor connected to the gate line and the data line;

forming a reflective electrode corresponding to the reflective portion and covering the first and second branch lines;

forming a transparent electrode corresponding to the transmissive portion and connected to the reflective electrode;

forming a color filter layer on the reflective electrode;

forming a common electrode on a second substrate;

attaching the first and second substrates such that the color filter layer faces the common electrode; and

forming a liquid crystal layer between the color filter layer and the common electrode.

37. The method according to claim 36, further comprising forming a passivation layer between the transparent electrode and the reflective electrode, the passivation layer including a groove corresponding to the transmissive portion.

38. The method according to claim 37, wherein the liquid crystal layer has a first thickness in the transmissive portion and a second thickness in the reflective portion, the first thickness being substantially twice as great as the second thickness.

39. The device according to claim 38, wherein the color filter layer has a third thickness in the transmissive portion and a fourth thickness in the reflective portion, the third thickness being substantially twice as great as the fourth thickness.